

Borough of Luton.

Report of the Medical Officer of Health,

MR. HORACE SWORDER,

For the Year ended the 31st day of December, 1895.

*Presented to the Sanitary Committee on the 31st day of January, 1896,
and ordered to be printed.*

MEDICAL OFFICER OF HEALTH'S OFFICE,

GEORGE STREET, LUTON,

January 31st, 1896.

GENTLEMEN,

I beg to lay before you my Report for the Year ended Dec. 31st, 1895, being my 17th Annual Report.

During the year 906 Births and 475 Deaths have been registered, equal to annual rates of 28·9 and 15·1 per 1000 respectively.

This gives an excess of Births over Deaths of 431.

There were 125 Deaths under 1 year.

"	"	32	"	between 1 and 5 years.
"	"	25	"	" 5 and 15 "
"	"	29	"	" 15 and 25 "
"	"	139	"	" 25 and 65 "
"	"	125	"	from 60 years and upwards.

The Deaths were thus distributed:—

Small Pox	0	Wasting—Infantile	29
Measles	1	Convulsive do.	20
Scarlet Fever	4	Hernia	3
Diphtheria, Croup	2	Senile	71
Whooping Cough	0	Injuries	8
Fevers	13	Bowel Disease	12
Diarrhœa, &c.	25	Urinary Organs	12
Rheumatic Fever	0	Nervous System—Paralysis, Fits, &c.	28
Erysipelas	0	Liver Disease	7
Pyæmia	0	Suicide	2
Phthisis	41	Confinement—Puerperal Fever	3
Scrofula, Struma	1	Premature Birth	8
Bronchitis, Pneumonia, Pleurisy	55	Other Diseases	80
Heart Disease	40		
Cancer	10		475
Syphilis	0		

Forty-five Deaths were referred to the seven principal Zymotic Diseases, viz., 1 to Measles, 4 to Scarlet Fever, 2 to Diphtheria and Croup, 13 to Fevers, and 25 to Diarrhœa. One only of these zymotic deaths occurred in the 1st Quarter and was referred to Typhoid Fever; Four in the 2nd Quarter, viz., 2 to Diarrhœa, 1 to Typhoid Fever, and 1 to Scarlet Fever; Twenty-nine in the 3rd Quarter, 23 being referred to Diarrhœa, 4 to Typhoid Fever, and 1 to Diphtheria and Croup, and 1 to Measles; and Eleven in the 4th Quarter, of which 7 were referred to Typhoid Fever, 3 to Scarlet Fever, 1 to Diphtheria and Croup. The zymotic rate for the whole year was equal to only 1·4 per 1000.

The following Table gives the number of Births, Deaths, Zymotic rate, and General Death rate for the last 16 years :—

		Births.		Deaths.		Zymotic rate.		Death rate.
1880	...	826	...	513	...	5.3	...	21.2
1881	...	880	...	469	...	3.4	...	19.5
1882	...	957	...	523	...	4.4	...	21.0
1883	...	1027	...	488	...	2.2	...	19.5
1884	...	1019	...	525	...	3.0	...	19.4
1885	...	1039	...	568	...	3.9	...	19.7
1886	...	1082	...	533	...	2.8	...	18.3
1887	...	1047	...	596	...	2.6	...	20.2
1888	...	1064	...	590	...	3.2	...	19.6
1889	...	998	...	439	...	1.2	...	14.3
1890	...	941	...	517	...	2.2	...	16.6
1891	...	939	...	439	...	1.0	...	14.6
1892	...	927	...	562	...	2.1	...	18.5
1893	...	951	...	557	...	2.8	...	18.2
1894	...	984	...	502	...	1.6	...	16.1
1895	...	906	...	475	...	1.4	...	15.1

The above Table is very satisfactory in every particular. It shows, in the first place, that the number of Births are decreasing, as in the first eight years there were 984 Births and in the second only 963—a decrease of 21—and that in spite of the great increase of the population: this decrease (which might be a bad thing for the country as a whole) is, I am persuaded, a good thing for Luton. Taking the same eight years, we find a decrease in the Deaths of 134 and a death rate of 16.6 in the second against 19.8 in the first eight years. The Zymotic rate is equally satisfactory, diminishing in the same period from 3.4 in the first eight years to 1.9 in the second. I think too, the satisfactory inference may be drawn that our general drainage system cannot be radically wrong, in spite of the Typhoid epidemic: if it were so, I believe it would be impossible to have had such a great and satisfactory reduction of the Zymotic rate.

SMALL POX.—No case has come to my knowledge during the year. In my 1st Quarterly Report I stated “We have been very fortunate in our continued immunity from Small Pox, as in a neighbouring Borough, with which we have much communication, there has been a number of cases. When Small Pox visits us, as it assuredly will, sooner or later, we shall not be able to complain that we had no warning to set our house in order.”

I consider it absolutely essential to have a good second line of defence, viz., *plenty of Hospital accommodation*. The first line of defence (and in my opinion, an almost ideal one), viz., *Vaccination*, being almost entirely neglected in this Borough. When I allude to Vaccination, I always refer to Calf Lymph, to Vaccination with which there can be little or no valid objection.

MEASLES.—Only one Death was referred to Measles in the 3rd Quarter.

SCARLET FEVER.—Four Deaths were referred to Scarlet Fever, 1 in the 2nd Quarter and 3 in the 4th. In the 1st Quarter I reported “two cases of Scarlet Fever occurring in the same house were enquired into, but no history of causation could be obtained. In the 2nd Quarter the death from this disease was enquired into and precautions taken, there was no history of infection: four other cases were enquired into. In the 3rd Quarter a child suffering from Scarlet Fever was removed to Spittlesea and made a very satisfactory recovery. In the 4th Quarter I reported “the three deaths from Scarlet Fever were enquired into and precautions taken. We have been, as far as my information goes, passing through a large epidemic of Scarlet Fever, the majority of the cases being of a very mild type. Five of the cases have been treated in rooms which were thoroughly isolated, and which were declared by the Town Clerk, on my advice, to be an extension of Spittlesea: all five cases thoroughly recovered, one only being of rather a bad type. No cases were notified to the Sanitary Authority, and therefore only a few came under our notice. We are hoping great things in this direction from immediate notification, thorough co-operation with the School Authorities and sufficient hospital accommodation. Two cases showing the necessity for immediate notification came to my personal knowledge. In the first case the child of a purveyor of milk fell ill with Scarlet Fever, and sending for me, I at once took the precautions necessary to prevent the milk becoming, as it so readily does, a vehicle of contagion. In the second case I was called into the country to see the child of a gentleman who supplied Luton with a large quantity of milk, I at once ordered the necessary precautions to be taken and no harm resulted. In both these cases a private

medical man would have been guilty of a breach of confidence if he had reported them to the Sanitary Authority in the absence of the law of notification, and it would have taken him much time and trouble to have given very minute and particular sanitary directions in these cases ; if the public health is worth preserving, it is worth adopting an Act which has such end in view, even though its adoption does entail some consequent expense." Sufficient Hospital accommodation could hardly be provided for a large epidemic, but the Notification Act tends to limit the size of it and therefore the amount of accommodation required : where the number of cases was getting too near to the number of beds provided, discretion would have to be exercised with regard to admission to the Hospital : out of a dozen cases it might be absolutely imperative to remove two or three, whereas the remainder might be fairly well isolated in their own homes.

WHOOPIING COUGH.—No Death was referred to this disease.

DIPHTHERIA AND CROUP.—In the 1st and 2nd Quarters no Death was referred to these diseases. One Death was referred to Diphtheria in the 3rd Quarter and one in the 4th Quarter. Both Deaths were enquired into : the second one was imported from London—the subject was a man living at Round Green, aged 25.

TYPHOID FEVER.—We have, unfortunately, passed through an epidemic of Typhoid Fever. No fewer than 66 cases coming to our knowledge, including 13 deaths. It appears to me that as the epidemic is about to be made the subject of a full and exhaustive enquiry, that I cannot do better than transfer my Reports for the 3rd and 4th Quarters (as far as they refer to Typhoid) bodily into this, my Annual Report :—

“ When I returned from my holiday towards the end of August I found that Typhoid Fever existed in two houses in Park Street. I at once visited the houses with the Inspector of Nuisances. We found that in the living room of each house (in the basement) a sink existed which was in immediate connection with the sewers. One pipe had just been cut off, and I ordered the other to be disconnected at once. Unfortunately, as it turned out, the mischief had already been done, and in the two houses, six people fell victims to the disease—only two, so far, escaping with their lives. This is not surprising when we consider the awful danger to which all these people were exposed ; in fact, that anyone escaped is the greater wonder. How people in the position of the owner of these two houses could tolerate such a nuisance for a day passes understanding. People often are prodigal of the lives of others, but very conservative of their own ! The water at these two houses was supplied by a pump at the back. I examined a sample, and thought it advisable to refer it to the Borough Analyst ; his opinion coincided with mine, that though the water was apparently free from sewerage contamination, yet it was not advisable to use it for dietetic purposes, as it contained some surface water and was excessively saline ; the use of the pump was promptly discontinued. Owing to the presence of a Scarlet Fever case in Spittlesea, it was not available for the sufferers from Typhoid, for the latter might have contracted Scarlet Fever. The Sanitary Committee therefore paid for the services of trained nurses until such time as Spittlesea should be ready for the reception of patients. Cases of Typhoid were soon heard of in Langley, Queen, Dorset, Chobham, Bailey, and Chase Streets, and one also in Bolton Road. On September 25th, as the number of cases was somewhat rapidly increasing, a special meeting of the Sanitary Committee was held at my request to consider what further steps should be taken. It was decided to supplement the accommodation at Spittlesea by the purchase of tents, and the Medical Officer was commissioned to engage as many nurses as might be required. With regard to certain allegations made from outside of neglect by the Authority's officers in carrying out their sanitary duties, the Committee unanimously passed a resolution of confidence in them, and this was confirmed at the next meeting of the Town Council. On October 1st I visited a number of Typhoid cases with the Medical Officer for the East Ward (Dr. McArthur), and at his request certified with him their fitness for removal to Spittlesea. Two women and three children were safely removed during the day, and two nurses were engaged for night and day nursing. On October 2nd another woman was admitted. On the night of the 3rd there was a small hurricane, necessitating the strengthening of the tent which had been erected, so that patients were unable to use it until October 5th. The weather, however, was so stormy that only one man could be moved on that day. On October 6th two more men were admitted, and two more on the 7th, making five in all. On the 8th the men were moved into the larger tent, and one more being admitted they numbered six in all. During that day two women were admitted into the smaller tent, and two more nurses were engaged for day and night work—two more nurses having been previously engaged for attending on the men. There were then six nurses, four of whom slept in the bell tent provided for the purpose, and two in Spittlesea.

"I have visited Spittlesea daily since two days before the admission of patients, and have been entirely responsible for the supervision of the nurses and the nursing arrangements, and for everything required for the use and comfort of the patients. I am particularly pleased with the attention the nurses give to their patients, and with the satisfaction the patients show with regard to their surroundings, whether in Spittlesea itself or in the tents. Everything reasonable has been granted in the way of furniture, medical and surgical necessities, food, &c.; there has been no friction whatever with doctors or nurses, and the other medical man in attendance has made no complaints, but has expressed himself as highly pleased with all the arrangements made for the nursing, comfort, and accommodation of the patients.

"The first death from Typhoid occurred on August 22nd, the second on September 5th, the third on September 23rd, and the fourth on September 23rd—all in Park Street. Up to this date three more deaths have been referred to Typhoid. Over 30 cases have come to our knowledge altogether, and have been carefully enquired into.

"Many large Typhoid epidemics have been traced to a particular milk supply or to infected water supply. In our case there has been no reason whatever to suspect the milk to be the vehicle of infection, as the cases of Typhoid have obtained their milk from very varied sources. With regard to water, nearly all the cases were supplied with our Company's water, which is regarded as being above suspicion, owing to its origin, and to its being a constant supply, without any intermission. The six cases in the two houses in Park Street were supplied with pump water, which was not quite satisfactory, but the presence of undisconnected sinks in both living rooms must be looked upon as being the probable and almost certain cause of infection. Only two or three cases were supplied with pump water, and the water in the two instances in which it was analysed was declared fit for domestic purposes.

"At the Special Meeting of the Sanitary Committee the Borough Surveyor reported that "in the streets in the East Ward there were 31 manholes, only 3 of which had a slight deposit of silt; that the gullies in such streets were and had been in thorough working order; that the main drains were efficiently and thoroughly carrying off the sewage, with the exception of a short portion near the Volunteer Club, Park Street, which owing to the gradient did not work so thoroughly as it might do, but no sewage matter remained therein for any length of time, as such drain had frequent attention given to it; and that the whole of the gullies, drains and sewers under the control of the Corporation were being flushed with water and disinfectants, and that this work would still be continued."

"If it be sufficient to account for the presence of Typhoid in Luton by attributing it to the exceedingly hot and dry weather we have experienced (*and we cannot so easily account for the almost total localization of Typhoid in a certain neighbourhood*, a neighbourhood almost bounded by Park Street, Chase Street, Chobham Street, and Bailey Street), the Surveyor's report would, without further inquiry, point to a possible block in Park Street and damming up of sewage in the drains behind; but on further investigation it appears that the drains in the neighbourhood mentioned, do not drain into that particular portion of sewer, but form a system of their own—the Park Town system: the current in the portion of sewer specially referred to runs in a contrary direction, towards Lea Road. Some complaints have been made with regard to ashes, but the town has never at any time been more efficiently ridden of its refuse. In a large town like Luton it will always be possible in every ward to find a few isolated cases, and those in the East Ward were probably common to both North and West. *Apart from that there is no suggestion that the occurrence of Typhoid is in any way due to this cause.* Sanitary defects are to be found in the East Ward, but probably, as in the case of the ashes, equally obtain in the North and West Wards. I am inclined to think that there is some special cause which may later come to light. As a matter of precaution it would be well if the public would boil all the milk on entering the house, and certainly the water if obtained from a well. On inquiry at the infected houses and examining the premises, we found in a few instances some sanitary defect; in no case could we, apart from the presence of such defect, get any history of infection or causation, except that where more than one case occurred in a house, the second and other cases were probably due either to the same exposure to infection which caused the original case, or to failure to carry out those obvious sanitary nursing precautions, the neglect of which might undoubtedly cause a second or any number of cases in the same house. *The first and last essential, in cases of Typhoid, is Cleanliness.* In my opinion the two most important steps to stay the progress of the epidemic, are—1st, Removal to Spittlesea; and 2nd, thorough flushing of the house drains and sewers with water. I might add that in cases not so removed, the thorough disinfection of the discharges from the bowels is of the utmost importance, as it is in these discharges that the specific poison is found. If they are emptied down a closet without being previously disinfected, the sewers receive poison which is multiplied indefinitely, and possibly gives rise to further Typhoid cases wherever any sanitary defect is

present. By removal to Spittlesea this danger is thoroughly avoided, for it has no connection whatever with the sewers, and all the discharges are first disinfected in the wards, and then taken to a distance and buried after further disinfection, and covered with earth.

“In the present state of sanitary knowledge our town appears to be in as good condition as most other towns. The great sanitary authorities are hopelessly at variance with regard to the ventilation of sewers, some going as far as to say that where no ventilation at all exists, there Typhoid is noticeable by its absence; others condemn in unqualified terms the system of ventilating by shafts. So that, in the present state of sanitary knowledge, I should consider it madness to spend money on altering our drainage system, but believe that we should concentrate our whole attention on systematic and automatic flushing, and that this should be done all the year round, but especially from July to the end of the autumn.”

“Forty-three patients were admitted into Spittlesea and its extension; at one time there were as many as 35 in-patients. There were only two deaths, which included that of Nurse Allan, who fell a victim to duty bravely done. The death rate was therefore only 4·6 per cent. One tent accommodated 5 patients, the other 8, Spittlesea itself 7, and each pavilion accommodated 10, so that we had accommodation for 40. The site is one of the healthiest imaginable, and this was proved by the low death-rate, which was low in spite of the moderate amount of cubic space per patient, and in spite of the severity of the cases. We had no complaints, all the patients apparently being very pleased with their surroundings, and unable to speak too highly of the attention they received from the nurses. The nursing was excellent, and most creditable to the Westminster Nursing Home. The whole work of removal of patients to and fro was very satisfactory, and reflected great credit on our worthy Inspector of Nuisances who superintended it. In fact, in the whole working of things no hitch occurred, everybody working most amicably to make our first large experience of accommodating fever cases a great success, which it undoubtedly has been. The disease on December 31st appeared to be quite dying out, no more cases having come to our knowledge, and we appeared to be within a measurable distance of closing Spittlesea. Nothing further has come to light with regard to the causation of the disease; if of course it be due simply to the foul state of the drains induced by the small amount of natural flushing they received, and by a few early cases of Typhoid being overlooked (and therefore the excreta left undisinfected) we shall naturally be foiled in our search for any further mode of causation; still, the examination will be, however, very satisfactory, if, as an outcome of it, we find our drains in good working order, and come to the conclusion that nothing more than systematic and automatic flushing will be required to keep Typhoid at arm's length, and having come to that conclusion, give strong effect to it by arranging at once for the requisite flushing.”

INFLUENZA.—In my 1st Quarterly Report I stated “four deaths were referred to Influenza, at the respective ages of 8, 26, 58 and 78 years. This disease affected a very large number of people, some very mildy indeed. I do not think on the whole it was equal in severity to former epidemics.”

DIARRHŒA.—Two Deaths were referred to Diarrhœa in the 2nd Quarter and 23 in the 3rd; the two in the 2nd and 21 in the 3rd being those of infants under 1 year. In my 3rd Quarterly Report I stated “the very hot weather we have experienced has, as usual, claimed a large although not excessive mortality from Diarrhœa. It is an invariable rule that when the summer is what we call unseasonable, viz., cold, wet, and cheerless, the mortality from Diarrhœa is low; but that when the sun shines in its full force day after day, or the weather is hot, but cloudy and close, the mortality from Diarrhœa is excessive. I have before stated that a continued high atmospheric temperature with *increased temperature of the soil*, is always apparently the principal factor which determines a large or small epidemic of Diarrhœa. This mortality is almost entirely confined to the poorer classes, and doubtless has to do chiefly with the food and to a great extent their inattention to sanitary matters generally.”

The average number of Deaths per year from Diarrhœa in the last 12 years has been just over 30. The highest number of Deaths in any one year from this cause was 54 in 1886 and the next highest was 49 in 1889 and 47 in 1893.

PHTHISIS.—Forty-one Deaths were referred to this cause—4 in the 1st Quarter, 13 in the 2nd, 11 in the 3rd, and 6 in the 4th. Last year there were 44 deaths, against 43 in 1893 and an average of 50 deaths from Phthisis for the 14 preceding years. Phthisis is evidently on the decrease in Luton, for the number of deaths are decreasing whilst the population increases. This decrease is most probably due to the very fairly effectual drainage of the sub-soil water.

INFANT MORTALITY.—

1st Quarter	...	...	110.6	Deaths per 1000 Births.
2nd	„	...	101.3	„
3rd	„	...	266	„
4th	„	...	77.9	„

This gives an Infant Mortality of 137.9 Deaths per 1000 Births. In my 4th Quarterly Report I stated “the Infant Mortality is, I believe, the lowest I ever recorded; for though there were only 17 deaths of infants under 1 year in the 4th Quarter of 1881, yet the smaller population makes all the difference.” Last year the Infant Mortality was 144.3, and 175 in 1893; the average of the 14 preceeding years was 167.

SANITARY INSPECTIONS.—Visits have been paid to all parts of the Borough. The following list will show what great success has crowned the painstaking and at times unthankful work of the Inspector of Nuisances :—

Drains and Closets blocked	...	...	...	296
Broken and defective Bell-traps	...	...	...	129
Defective Closets and Drains	..	...	...	209
No Ash Receptacles	...	...	...	43
W.C. Apparatus out of order	...	...	...	76
Offensive Smells and Accumulations	...	...	...	67
Insanitary Privies	...	...	...	27
Insanitary Houses	...	...	...	33
Sinks not disconnected	...	...	...	106
Defective Ash-pits	...	...	...	6
Defective Ventilating Pipes	...	...	...	10
Pigs kept contrary to Bye-laws	...	...	...	47
Defective Urinals	...	...	...	3
Want of separate Sanitary Accommodation for Females				6
Other Nuisances	...	...	...	46
Total				1104

Nearly the whole of the above Nuisances have been abated, and in connection with them 448 notices have been served. The Inspector is pleased to report that with few exceptions the notices he served were quite sufficient to get his necessary sanitary arrangements carried out. The public may always rely upon the Inspector doing his utmost in their interests, and must have confidence, that when a nuisance is not immediately abated after reporting the same to him, that there must be some good cause for the delay. I would here remark that during all the troubles and anxieties of the last five months, the Inspector and I have worked together with the utmost harmony in carrying out the work of our respective offices, which has never overlapped more than it has during the time mentioned.

PRIVIES.—Eighteen privies have been converted into closets, leaving only 73, and of these, 35 are found at Round Green, so that practically in Luton proper only 38 privies are still in existence.

SINK DRAINS.—The Inspector reports finding 106 sinks directly connected with the sewers: in nearly every case he has had the pipe cut off and made to discharge on to glazed syphon traps in the open air. Two house sin Park Street furnished four deaths from Typhoid Fever, probably owing to this dangerous sanitary defect.

COLLECTION OF ASHES.—The Inspector reports that 9607 loads of refuse have been removed from ash-pits by the Corporation teams. I cannot as usual report that there were no complaints on this head, but I *can* report that personally I thought them, to say the least, a bit exaggerated, and that immediate steps were taken to remove the least cause of complaint and that most effectually. We cannot remove nuisances the existence of which are unknown to us; if people persist in bottling up nuisances in order to complain about them, another Inspector will soon be rendered necessary. Providence helps those who indulge in self-help; some people seem to require as I told one of these helpless people recently, an Inspector of Nuisances constantly at their elbow. I should like to see the town which has a more active, intelligent and urbane Inspector of Nuisances than we have.

DAIRIES, COW-SHEDS & MILK-SHOPS.—There is nothing special to report on these heads, except that 10 persons have been registered as purveyors of milk.

BAKE-HOUSES have been visited and found in satisfactory condition.

MEAT & FISH MARKET.—The Inspector has visited the market regularly and found the meat and fish in very good condition. On June 15th I examined two pigs' heads in four halves, brought to my office by the Inspector at 9.15 p.m.; the meat was, in my opinion, utterly unfit for food, and the odour arising from it was most offensive.

ATTENDANCE IN COURT.—I only attended once during the year in connection with the pigs' heads which I had condemned. On July 6th I gave evidence in the case; it was proved that the meat was exposed for sale while in a state of decomposition, and the Bench fined the defendant £5, including costs.

FACTORIES & WORKSHOPS.—The Inspector reports that in a few cases the ventilation was defective; and in a few, separate sanitary accommodation for females was provided.

MANHOLES & SHAFTS.—No additional shafts have been erected during the year. During the hot weather there were numerous complaints about the manholes; in my opinion, it is very bad policy to stop them up, by so doing, vent will be found elsewhere, and not in such a safe place as the middle of the road.

WATER.—During the year 15 samples were analysed, of which 8 were passed as fit for domestic purposes, and 5 were condemned as unfit. The two others were slightly suspicious and ultimately the Company's water was laid on in one case and in the other some cause of contamination was removed.

FOOD & DRUGS ACT.—Thirty-six samples have been submitted to the Public Analyst, viz., Butter 8, Milk 27, Coffee 1. Four samples of milk were returned as very poor. Milk was only reported adulterated in one case, and coffee one—in fact the only one submitted. In the milk case the offender was fined, including costs, £1 12s.; in the second case (coffee) he was written to and told not to do it again.

MILK.—It is gratifying to see that as many as 27 samples of milk were analysed and that only one prosecution resulted. The importance of the subject to our infant population cannot be over-rated. Imagine, too, its importance to the sufferers from Typhoid Fever who were dependent upon it for weeks. The milk bill for Spittlesea was a heavy one, but the milk was of the best quality, and the low death-rate showed that the patients must have been well sustained by it. I cannot do better than repeat what I wrote in a former report, "The public will in time be educated to see that the subject of adulteration is one that most intimately affects their health and pockets, and that it is not a fad of Health Officers and Analysts only. When they comprehend this, they will soon see to it that their Magistrates do not take too lenient a view of what is so often a heartless and cruel procedure, to say nothing of the deliberate theft implied in the act of adulteration. A man who steals is a thief; a man who adulterates articles of food and commerce, is no less a thief, though he would be much offended if his acts were properly characterised."

SLAUGHTER-HOUSES.—The Inspector has visited these frequently during the year and has found them in a satisfactory condition.

DISINFECTANTS.—Again we have had our disinfectants analysed, with the result that when Typhoid broke out we had confidence in the use of them. Disinfectants have not only to be effectual, but they have to be safe, so that all sorts and conditions of men, women and children may use them with safety. I believe that both our disinfectants answer these requirements; their total cost for the year was £68. That the public reposed some faith in them was shown by the steady rush of people every morning to the Inspector's office during the height of the epidemic.

WATER SUPPLY.—There are very few wells left in the town; so that in considering the causes of the Typhoid outbreak, it cannot be attributed to them, though it is quite possible that the first case might have been due to drinking water from a well, which, on analysis, could not be condemned, but was

slightly suspicious. Our Company's water has always been regarded as being above suspicion. Every analysis which is made, and they have been many, has shown it to be a first-class water. The question of *local* contamination of the supply was under consideration, but on careful enquiry no reasonable cause for suspicion could be entertained. Constant water supplies such as ours hardly lay themselves open to sewage contamination.

SPITTLESEA.—One case of Scarlet Fever and forty-two cases of Typhoid Fever were removed there; the Scarlet Fever case made a satisfactory recovery. Including Nurse Allan forty-three cases of Typhoid were treated in Spittlesea and its extension. What proportions the Epidemic would have attained had we not had Spittlesea to fall back upon I hardly like to consider. When one thinks of the volume of infectious foecal matter which was buried at Spittlesea with every precaution, and which would otherwise have passed into our sewers, much of it without the slightest attempt at disinfection, one can realise the benefit which even a small building like ours can confer; through its existence we were able rapidly to add to our accommodation till we had all that was requisite.

SCHOOLS.—No schools were closed during the year: it is quite a question whether anything would be gained by closing them when Scarlet Fever is widespread; a more excellent way is to have immediate notification and thorough co-operation between the School and Sanitary Authorities.

BATHS are more than ever appreciated by the public, and they are provided with a very plentiful supply of pure water.

SANITARY REQUIREMENTS.—IMMEDIATE NOTIFICATION.—This is to come into force on Feb. 23rd. Completion of our Hospital Accommodation. A Steam Disinfector. Systematic and automatic flushing more thoroughly carried out. Further Ventilating Shafts.

INFECTIOUS DISEASES Advice as to.—In September I advised removal of Typhoid patients to Spittlesea and systematic flushing. Later, further Hospital accommodation, and that being all utilised, I had to suggest further provision which was immediately granted. Previously, I had advised that Typhoid patients required day and night nurses, and that paying nurses to run in and out the infected houses (partial nursing only) brought nurses and nursing into disrepute. The disinfectants were again submitted to analysis on my suggestion. I also have advised the purchase of a Steam Disinfector, and some outside advice with regard to future accommodation of Fever cases.

In conclusion, I would state that though I have had more work and responsibility this year than in any of the years since my appointment in 1878, none have been more interesting to me. It is *something*, after urging certain requirements in season and out of season, to see the fruit of one's labours well within one's grasp, and not of the will o' the wisp order of two years ago. I cannot sufficiently thank you and the Town Council for the many marks of confidence shown me, apart from the votes of confidence which you passed so unanimously. I ask nothing more than that I may continue to retain that confidence in the future, in which the work bids fair to be more arduous than ever, but still surpassing in interest. To my brother officers my grateful thanks are due, for if my services have been acceptable to you, it is largely owing to their kind and hearty co-operation.

I am, Gentlemen,

Yours obediently,

HORACE SWORDER.

To the Members of the Sanitary Committee of the Borough of Luton.



Borough of Luton.

BIRD, MAYOR.

December 31st, 1895.

❖ ANNUAL ❖ REPORT ❖

OF THE

Medical Officer of Health,

❖ Mr. Horace Sworder. ❖

GEO. SELL,

TOWN CLERK.